



TROPICAL UPDATE

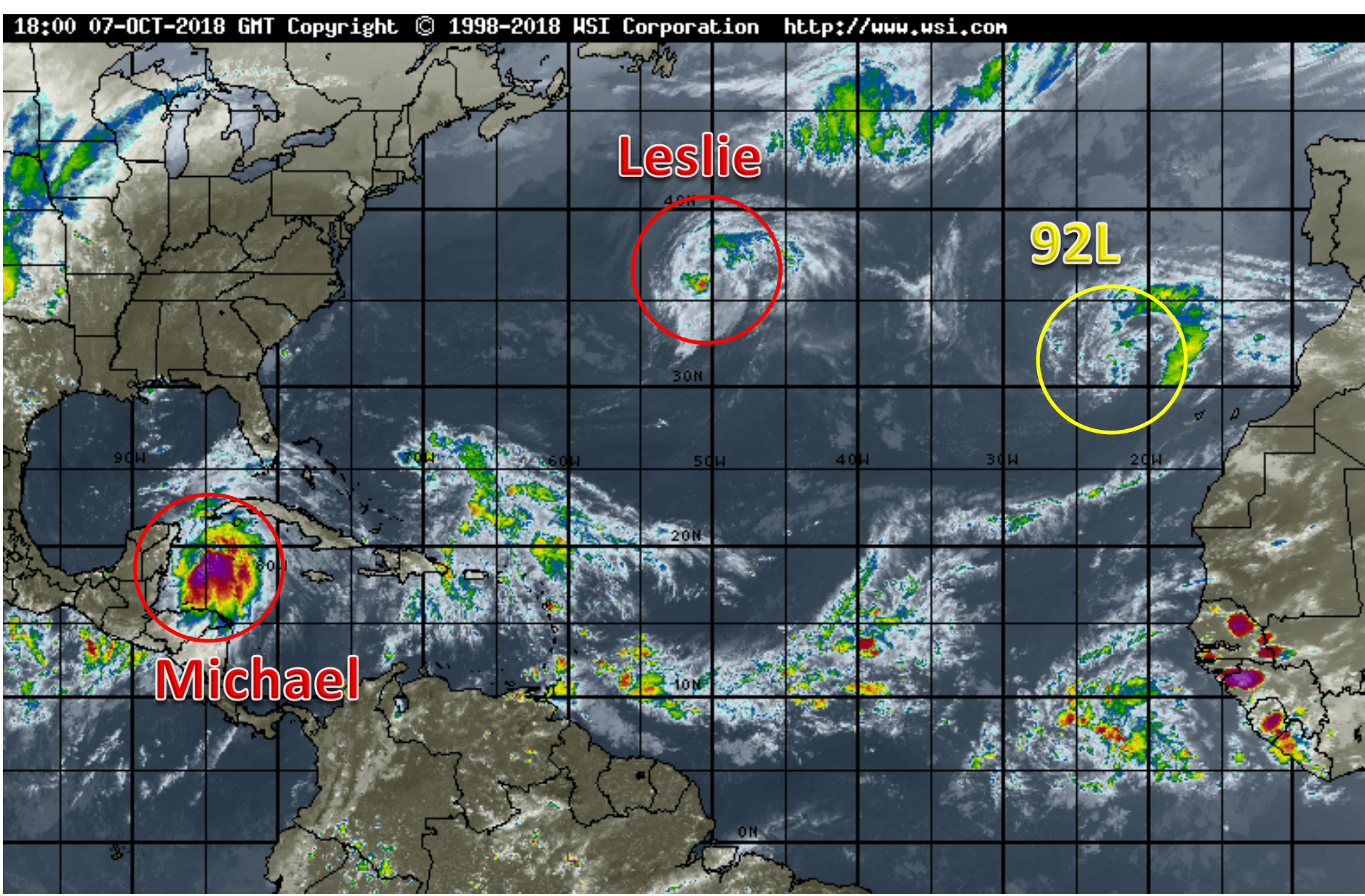
5 PM EDT

Sunday, October 7, 2018

**Tropical Storm Michael, Tropical Storm Leslie,
& Invest 92L (30%)**

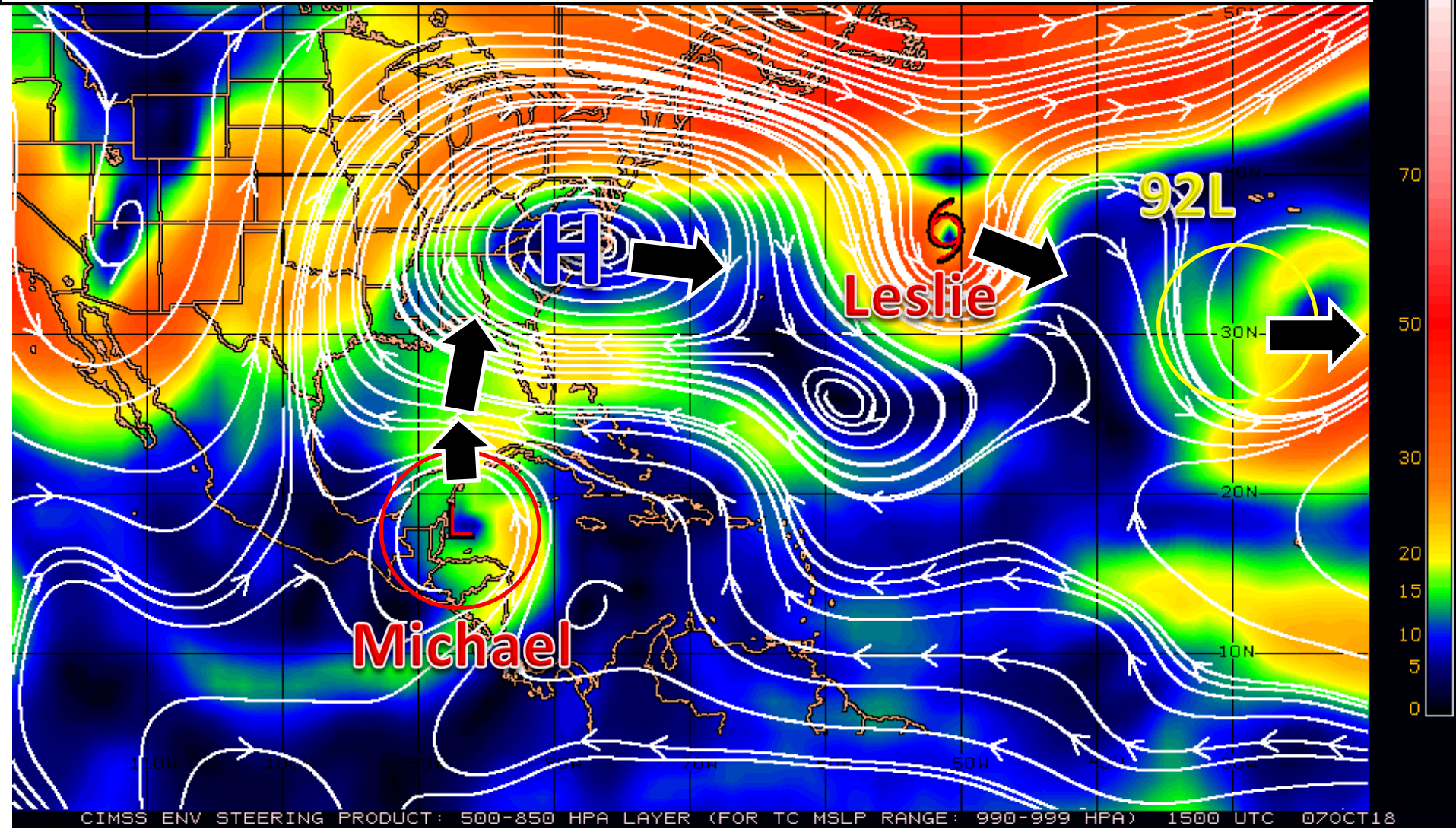
This update is intended for government and emergency response officials, and is provided for informational and situational awareness purposes only. Forecast conditions are subject to change based on a variety of environmental factors. For additional information, or for any life safety concerns with an active weather event please contact your County Emergency Management or Public Safety Office, local National Weather Service forecast office or visit the National Hurricane Center website at www.nhc.noaa.gov.

Atlantic Basin Satellite Image



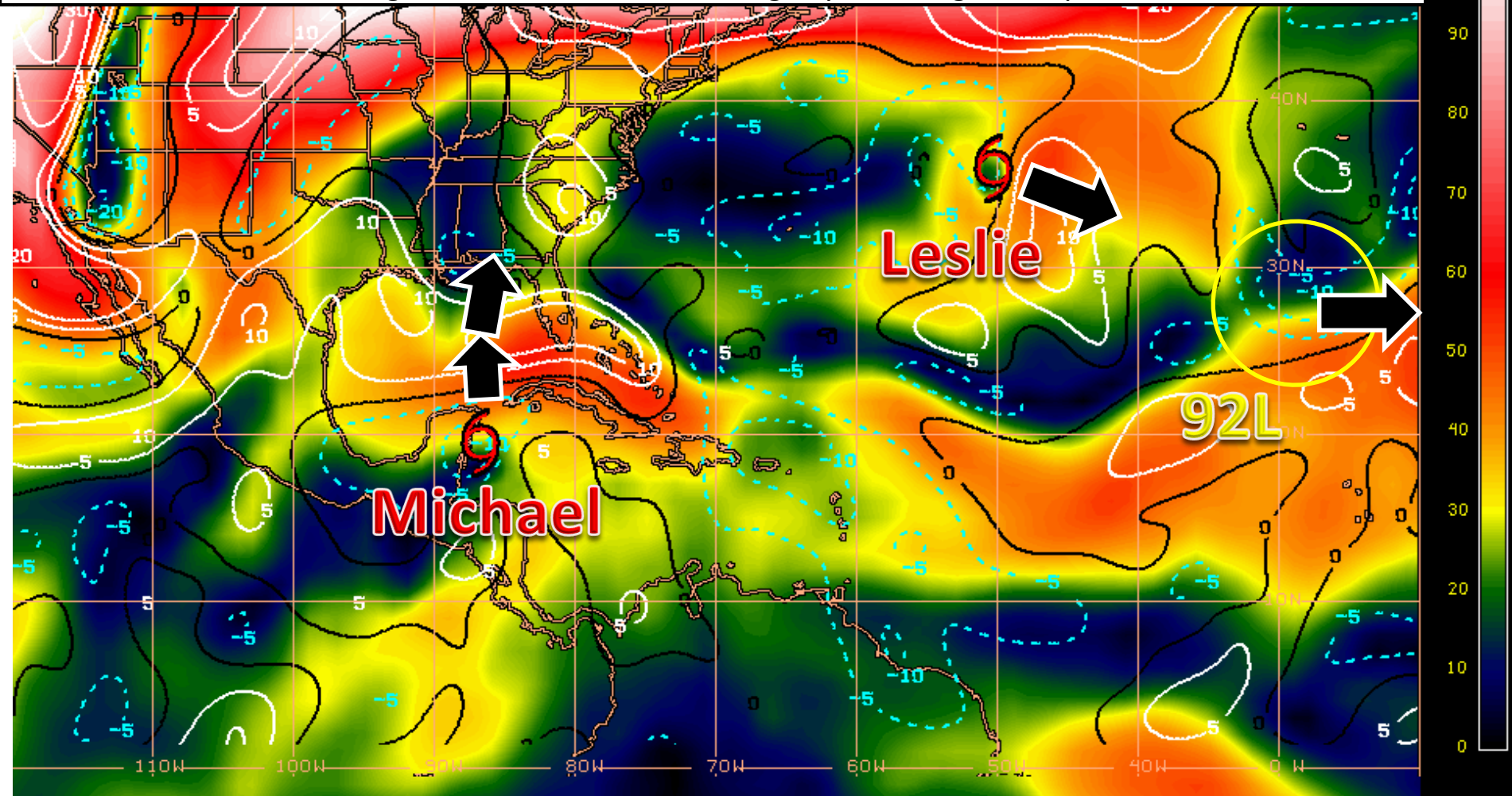
Steering Pattern

Michael is currently being blocked by a large area of high pressure which will result in little movement tonight. However, the high will weaken and shift eastward with a cold front approaching from the west. This will allow Michael to move northward tomorrow and Tuesday and eventually northeast. Leslie and the non-tropical low will continue to move east or southeast.



Wind Shear (shaded) and Wind Shear Tendencies (contoured)

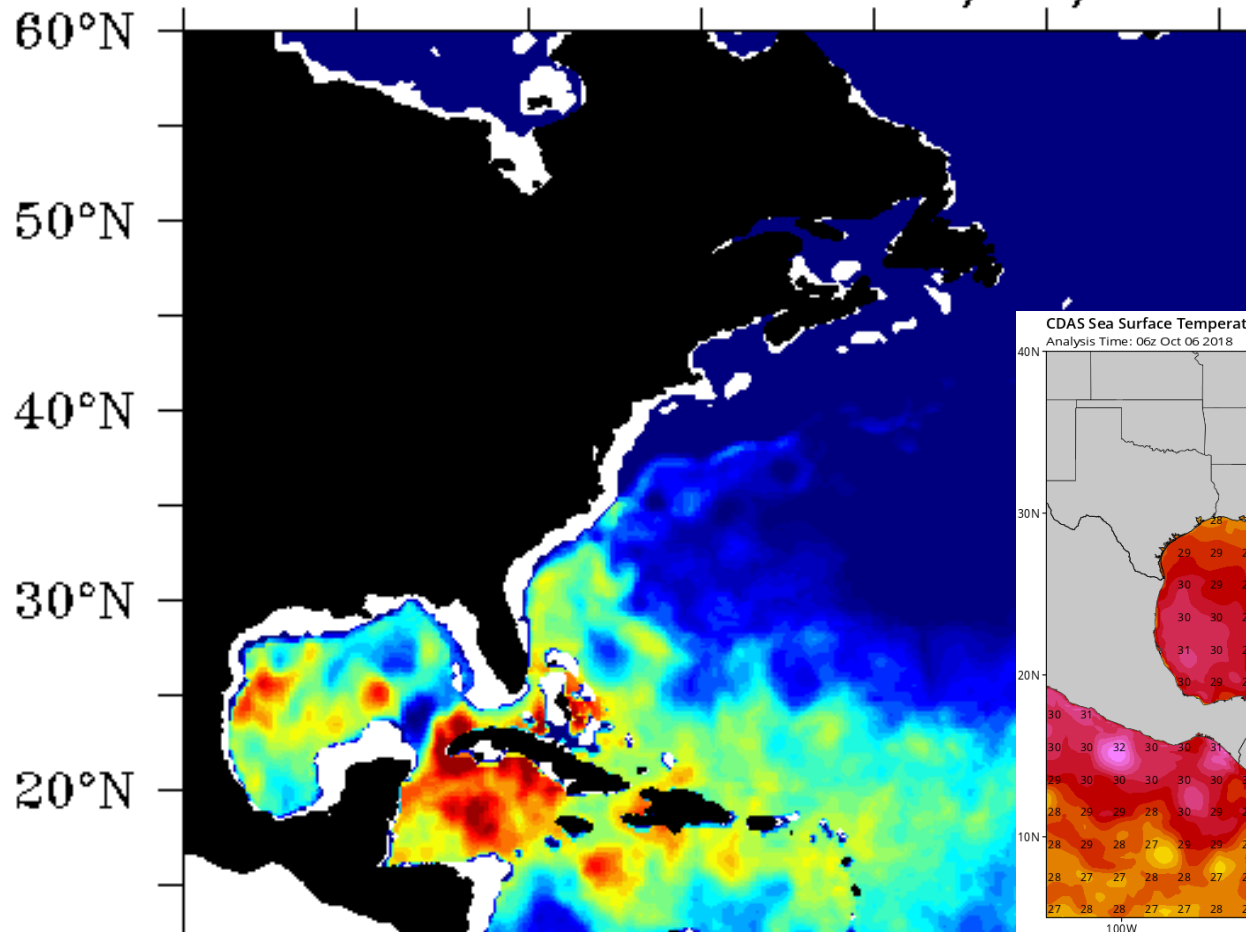
Strong wind shear in the northwestern Caribbean and Yucatan Channel have prevented any rapid development today. However, this wind shear is forecast to relax which will allow strengthening of Michael into a hurricane once it moves into the Gulf of Mexico. Leslie and the non-tropical low will see increasing wind shear over the coming days, limiting development.



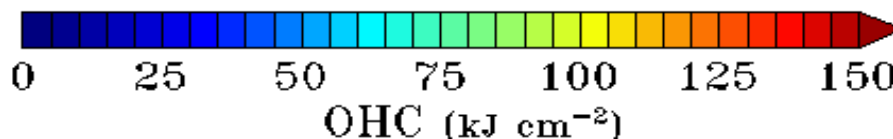
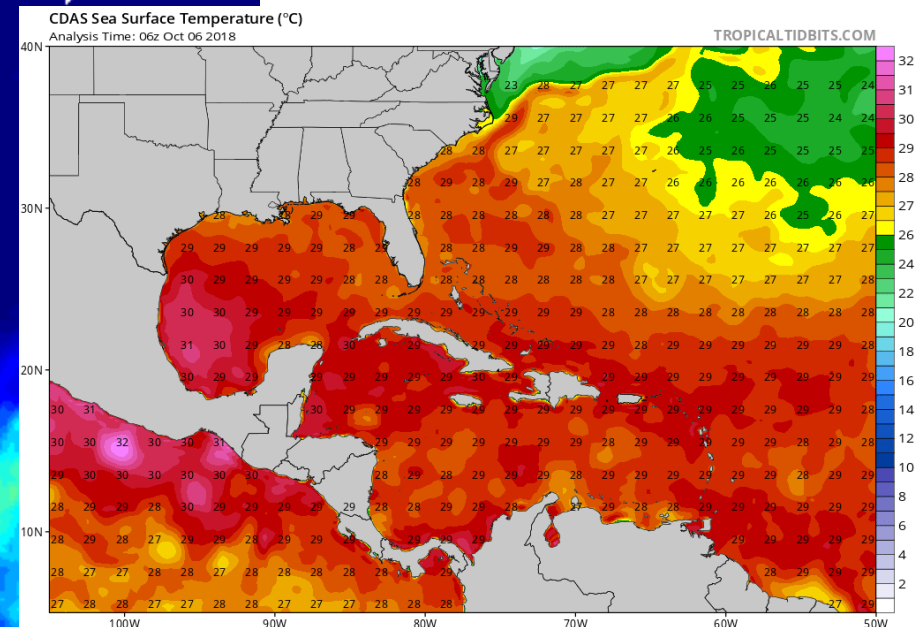
Shear Tendency (KTS) Over Past 24 Hours: Increasing ——— Decreasing - - - -

Current Sea Temperatures and Ocean Heat Content

Ocean Heat Content: 10/07/2018



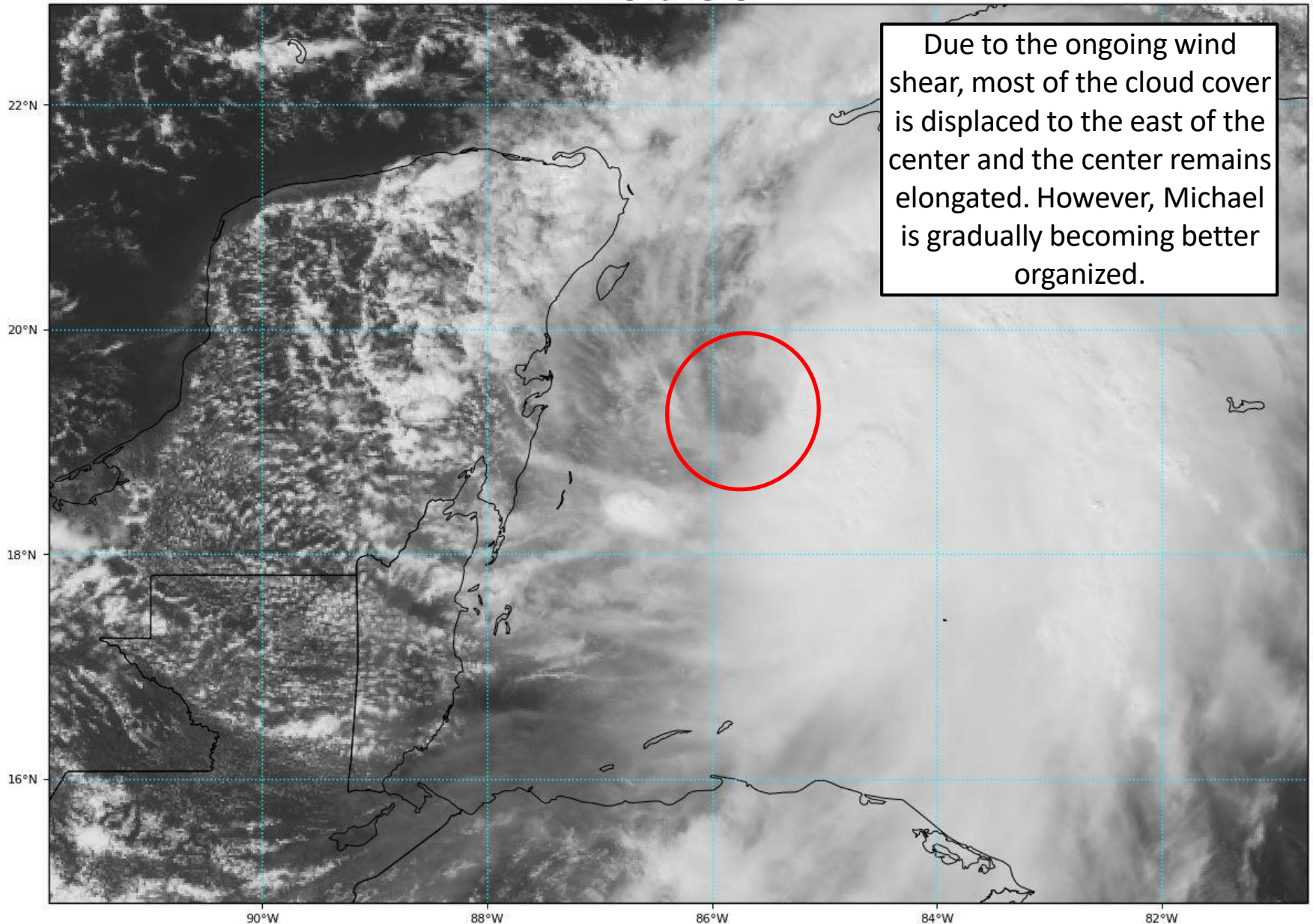
Ocean temperatures and the depth of warm water (heat content) is sufficient for development in the Caribbean and central Gulf.



Tropical Storm Michael Satellite Image

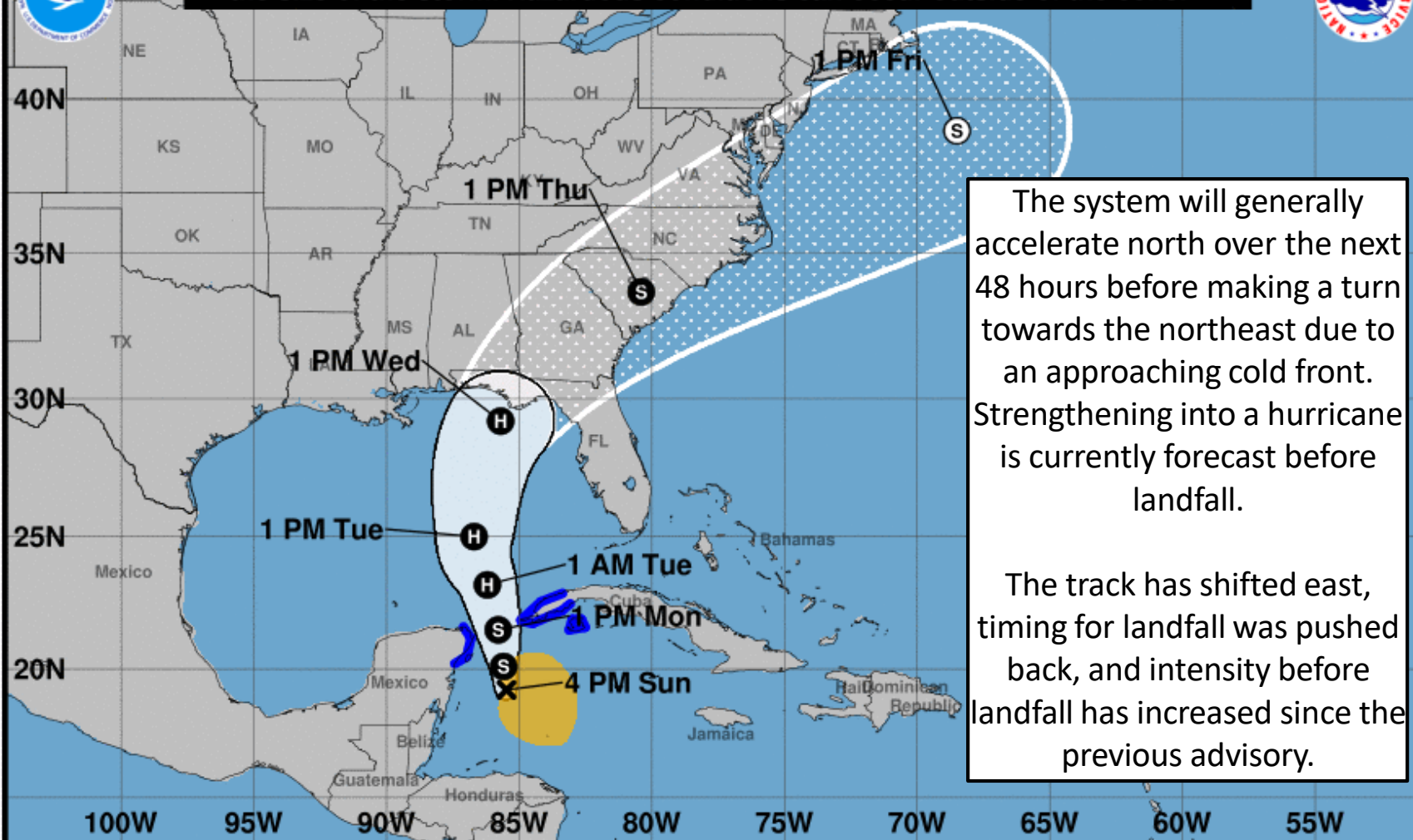
GOES-16 Channel 2 (visible) / Channel 7 (shortwave IR) [Day/Night] at 18:50Z Oct 07, 2018

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Note: The cone contains the probable path of the storm center but does not show the size of the storm. Hazardous conditions can occur outside of the cone.



The system will generally accelerate north over the next 48 hours before making a turn towards the northeast due to an approaching cold front. Strengthening into a hurricane is currently forecast before landfall.

The track has shifted east, timing for landfall was pushed back, and intensity before landfall has increased since the previous advisory.

Tropical Storm Michael

Sunday October 07, 2018

4 PM CDT Advisory 5

NWS National Hurricane Center

Current information: x

Center location 19.2 N 85.5 W

Maximum sustained wind 50 mph

Movement NNE at 3 mph

Forecast positions:

● Tropical Cyclone ○ Post/Potential TC

Sustained winds: D < 39 mph

S 39-73 mph H 74-110 mph M > 110 mph

Potential track area:

Day 1-3 Day 4-5

Watches:

Hurricane Trop Stm

Warnings:

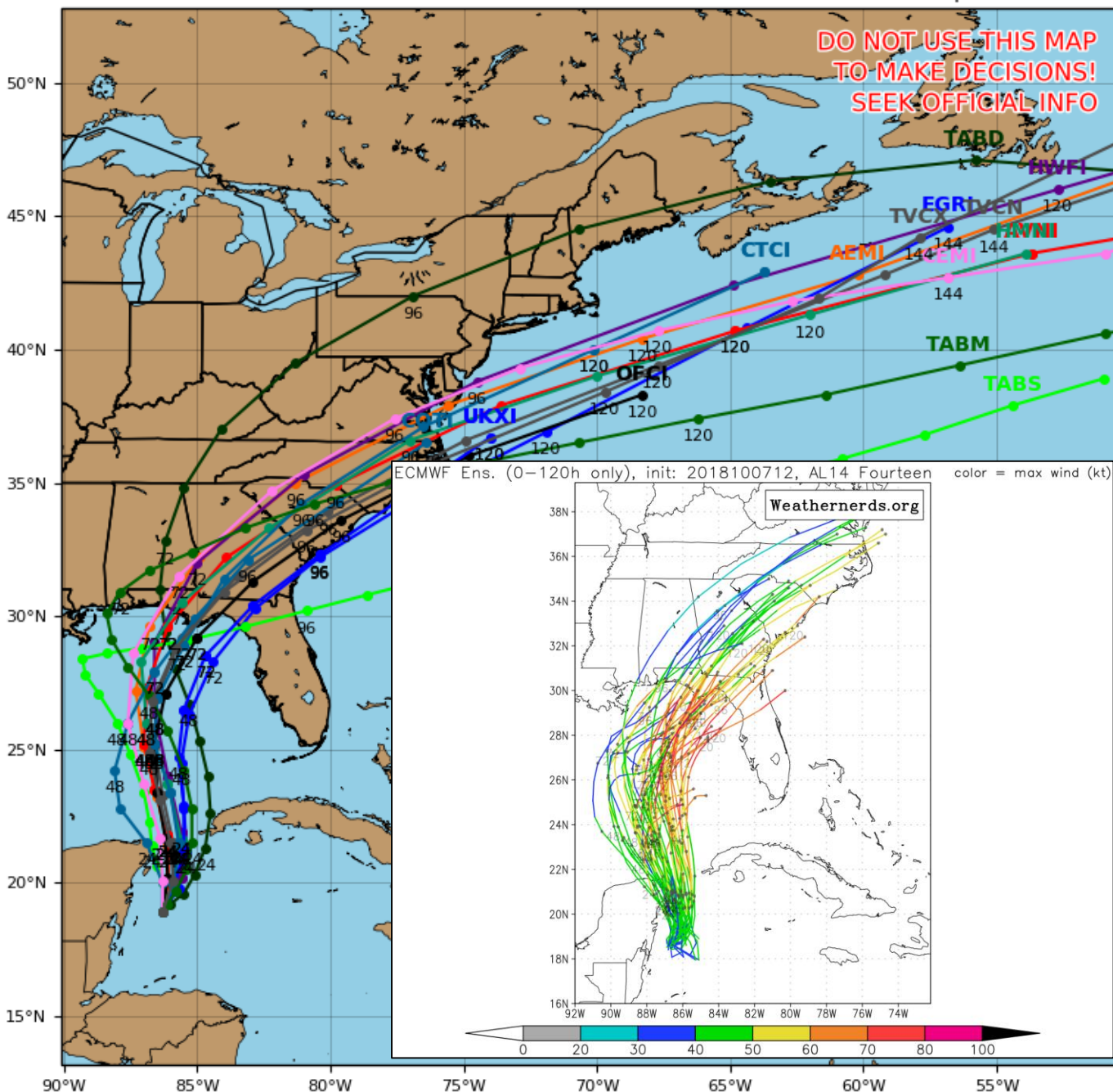
Hurricane Trop Stm

Current wind extent:

Hurricane Trop Stm

Levi Cowan - tropicaltidbits.com

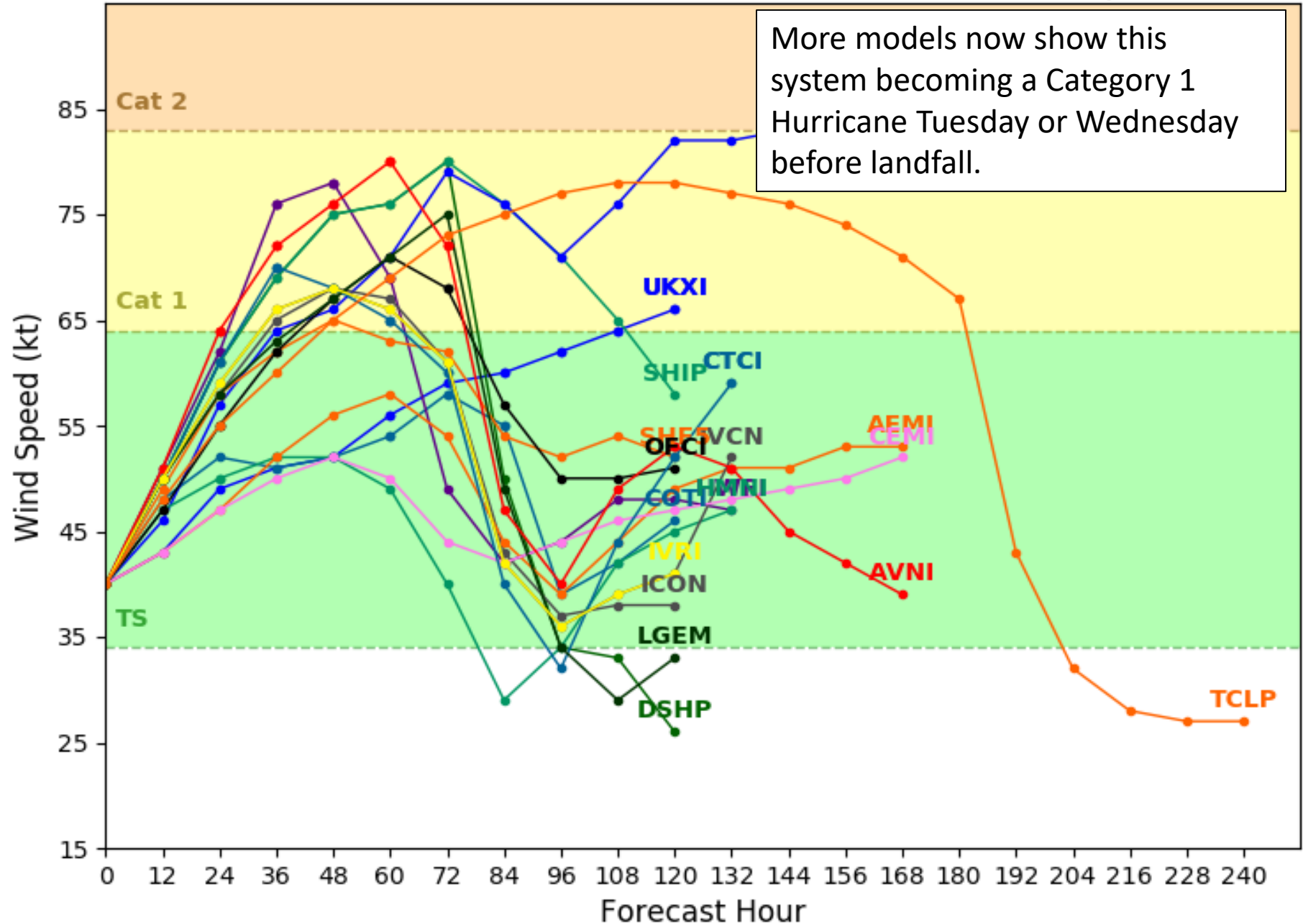
However, there is some discrepancy in forward speed. A faster storm will tend to make landfall in the Panhandle while a slowly storm may curve more northeast into the Big Bend.



Initialized at 18z Oct 07 2018

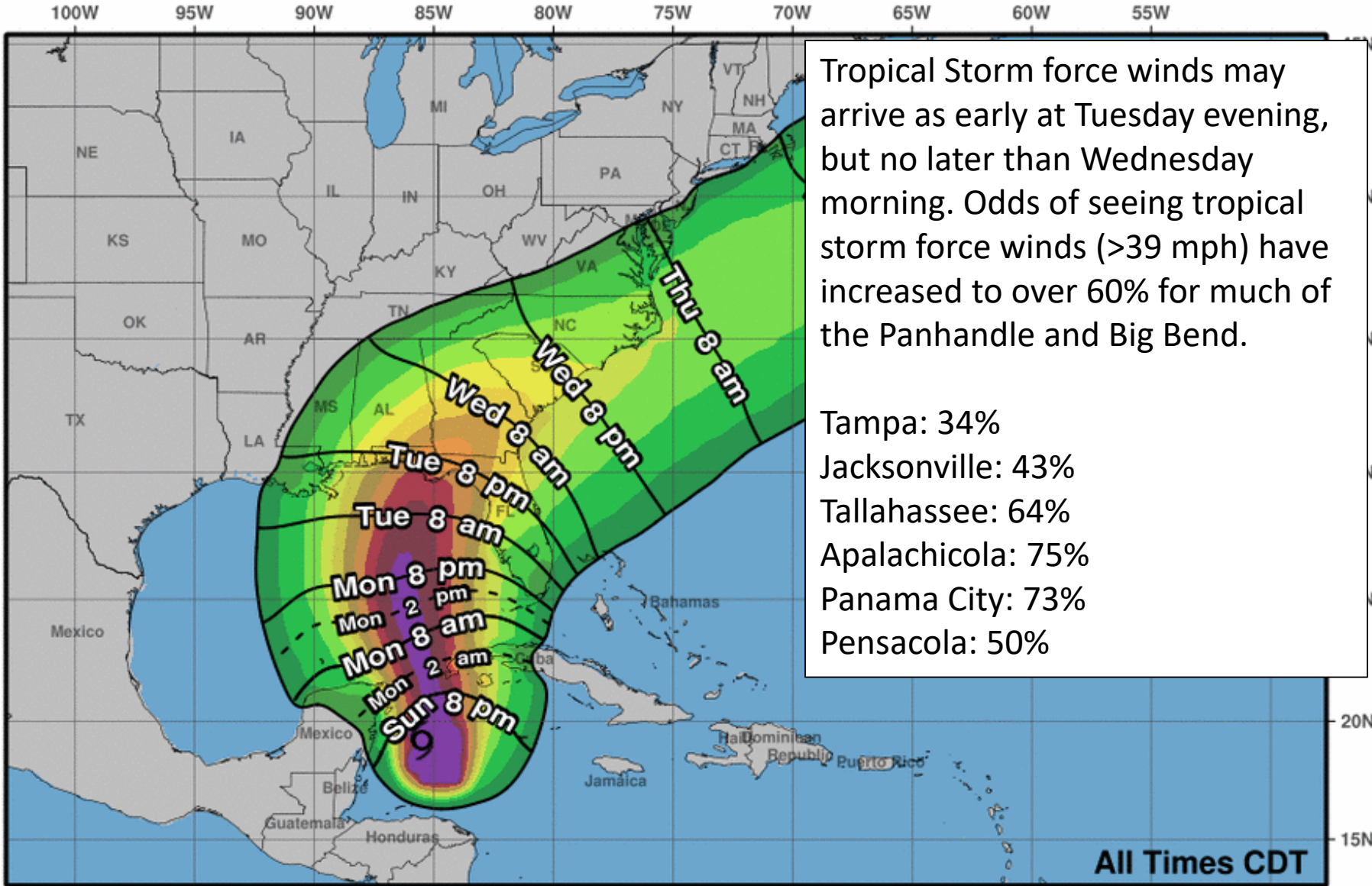
Levi Cowan - tropicaltidbits.com

More models now show this system becoming a Category 1 Hurricane Tuesday or Wednesday before landfall.





Earliest Reasonable Arrival Time of Tropical-Storm-Force Winds



Tropical Storm force winds may arrive as early at Tuesday evening, but no later than Wednesday morning. Odds of seeing tropical storm force winds (>39 mph) have increased to over 60% for much of the Panhandle and Big Bend.

- Tampa: 34%
- Jacksonville: 43%
- Tallahassee: 64%
- Apalachicola: 75%
- Panama City: 73%
- Pensacola: 50%

Tropical Storm Michael
Sun. Oct. 7, 2018 4 pm CDT
Advisory 5

Storm Location & Wind Speed

< 34 kt (39 mph)

34-63 kt (39-73 mph)

≥ 64 kt (74 mph)

5-day chance of receiving sustained 34+ kt (39+ mph) winds

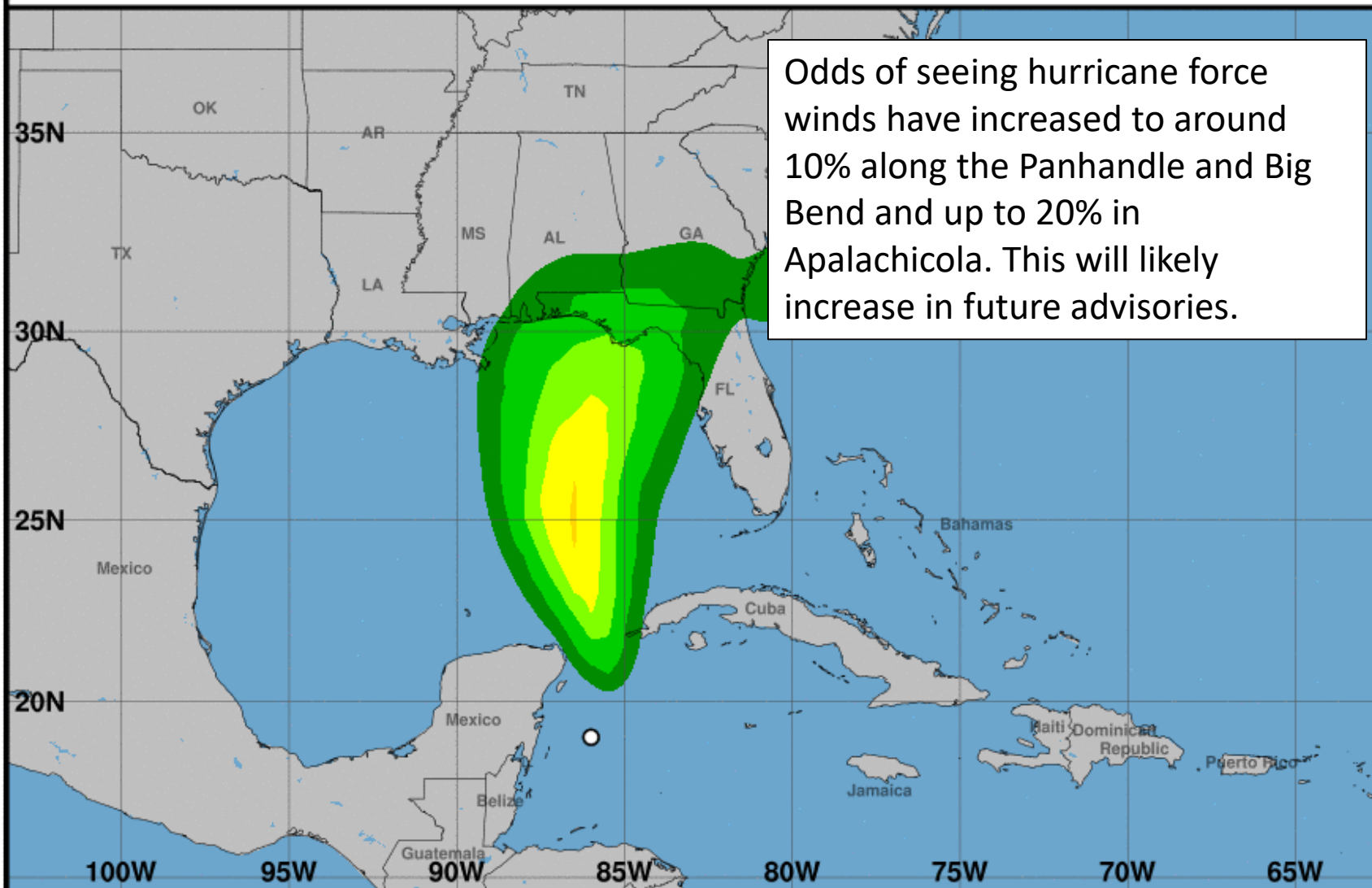
5 10 20 30 40 50 60 70 80 90 100 %



Hurricane-Force Wind Speed Probabilities (Preliminary)

For the 120 hours (5.0 days) from 1 PM CDT SUN OCT 07 to 1 PM CDT FRI OCT 12

Odds of seeing hurricane force winds have increased to around 10% along the Panhandle and Big Bend and up to 20% in Apalachicola. This will likely increase in future advisories.



Probability of hurricane-force winds (1-minute average ≥ 74 mph) from Tropical Storm Michael

○ indicates Tropical Storm Michael center location at 1 PM CDT SUN OCT 07, 2018 (Forecast/Advisory #5)



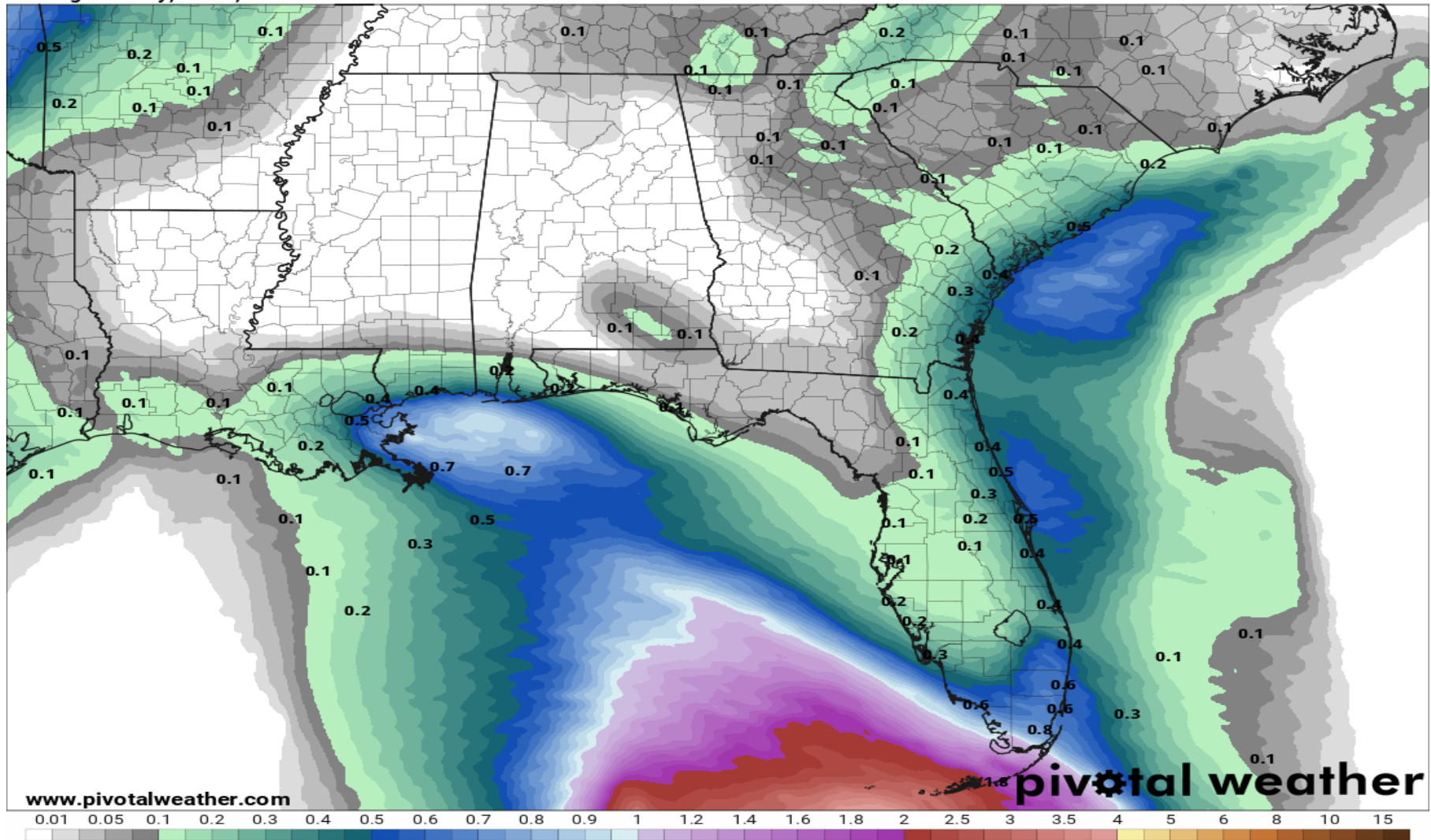
Forecast Cumulative Rain Totals – Next 48 Hours

Rain bands from Tropical Storm Michael will begin to impact the Florida Keys later today into tomorrow. Localized rainfall amounts of 2-4" will be possible along with an increased threat of waterspouts. Winds will be breezy, out of the east and southeast at 20-30 mph.

48-Hour Precipitation (in)

Ending Tuesday, Oct. 9, 2018 at 8 a.m. EDT

Init: Sun 2018-10-07 12z WPC



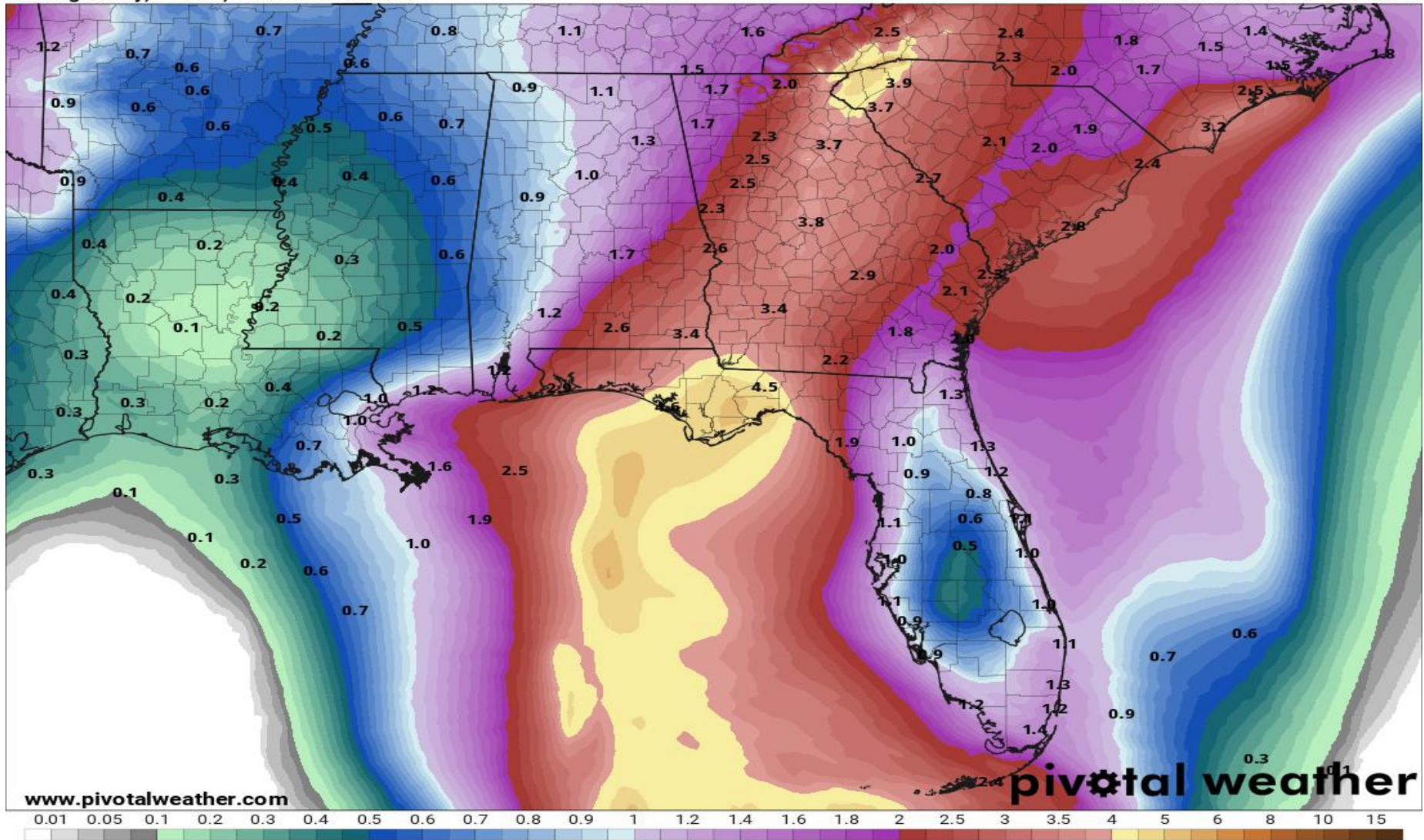
Forecast Cumulative Rain Totals – Next 5 Days

Actual rain totals will be dependent on the strength and track of Michael and this graphic does not account for isolated higher totals. However, a general 3-6" can be expected across the Panhandle and Big Bend Tuesday-Thursday. Localized totals of 8-10+" possible.

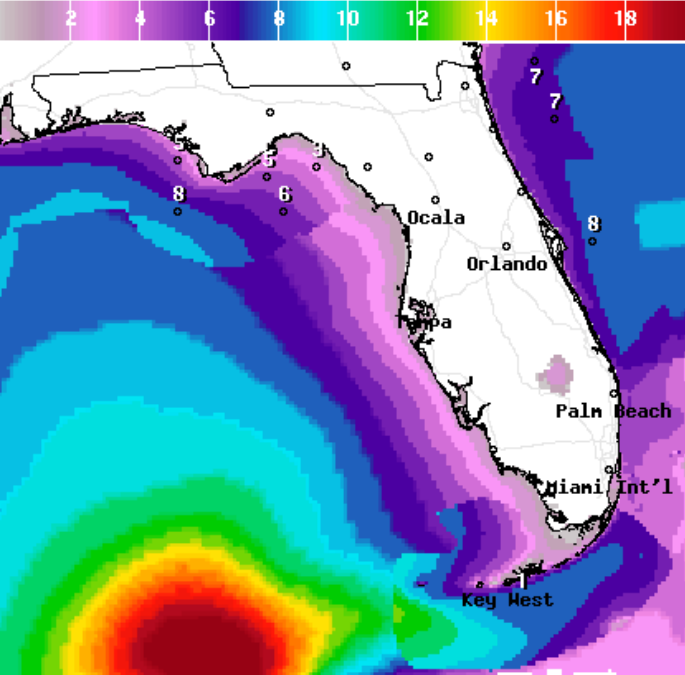
120-Hour Precipitation (in)

Ending Friday, Oct. 12, 2018 at 8 a.m. EDT

Init: Sun 2018-10-07 12z WPC



Forecast Wave Heights

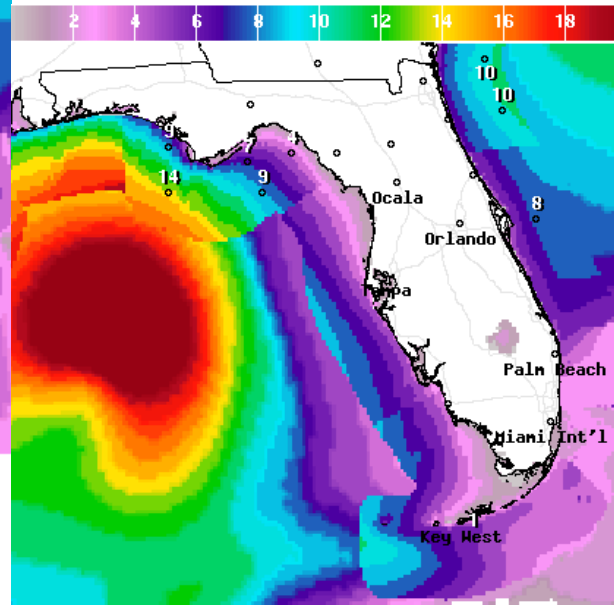


Wave Height(ft) Ending Mon Oct 08 2018 8PM EDT

Monday

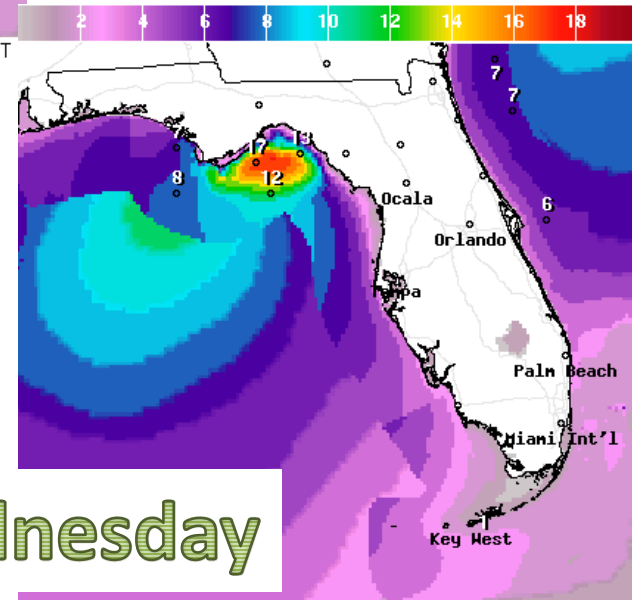
Ocean swells will increase the rip current threat along the Panhandle coast and West Coast starting tomorrow.

Wave heights along the Panhandle and Big Bend may peak at 8-10' at the beach and much higher offshore. Beach erosion likely.



Wave Height(ft) Ending Tue Oct 09 2018 8PM EDT

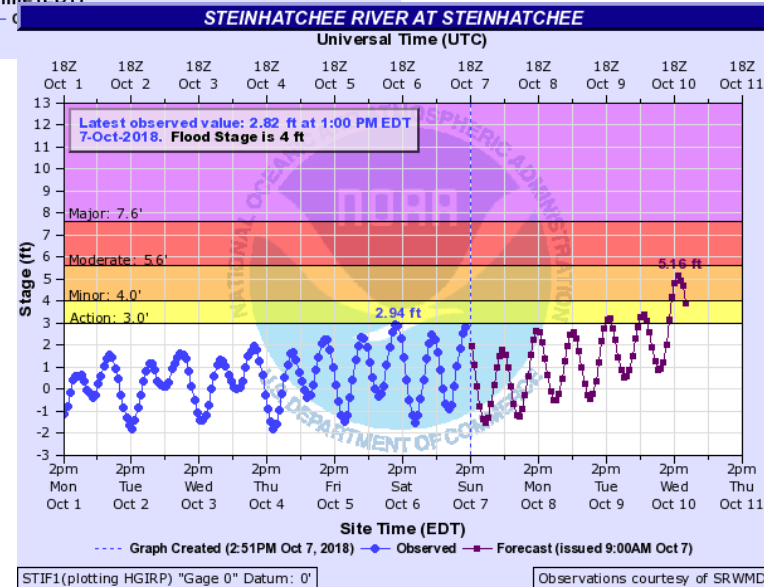
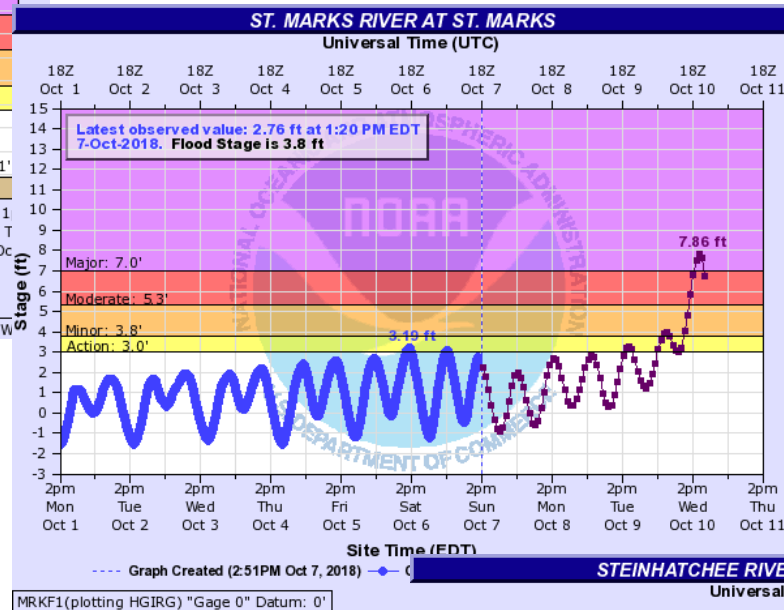
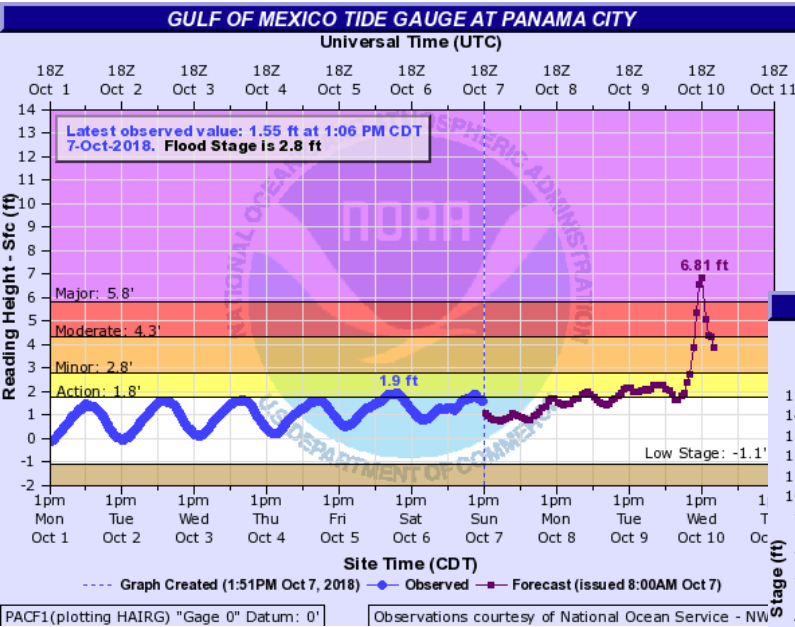
Tuesday



Wave Height(ft) Ending Wed Oct 10 2018 8PM EDT

Wednesday

Forecast Water Levels at Select Tidal Gauges



Storm surge amounts will depend on exact track and intensity! More details will become available tomorrow morning from NHC.

These are for planning purposes worst case:

4-6' in Central/eastern Panhandle

6-10' for Apalachee Bay

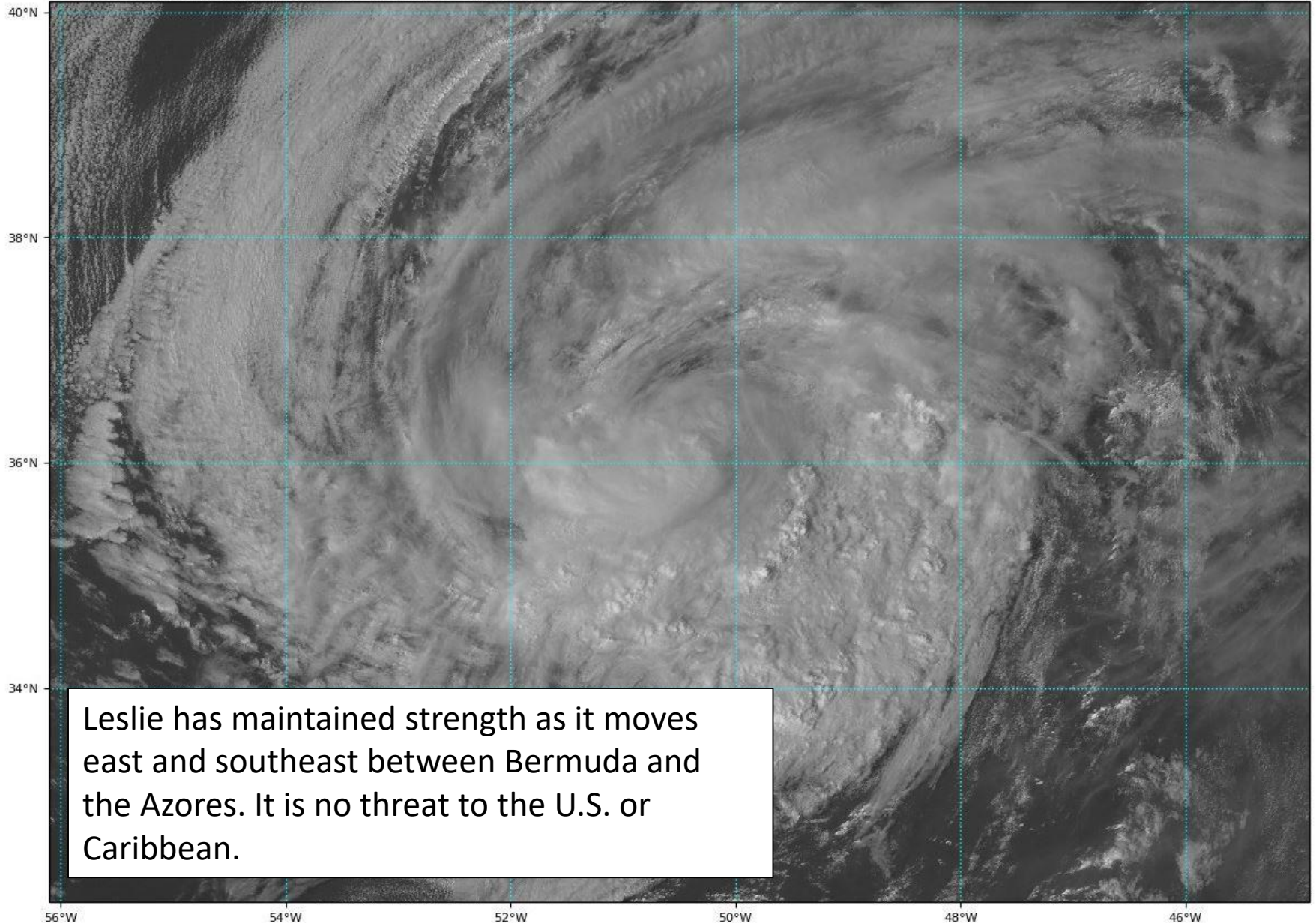
3-5' Nature Coast

<https://www.weather.gov/serfc/>

Tropical Storm Leslie Satellite Image

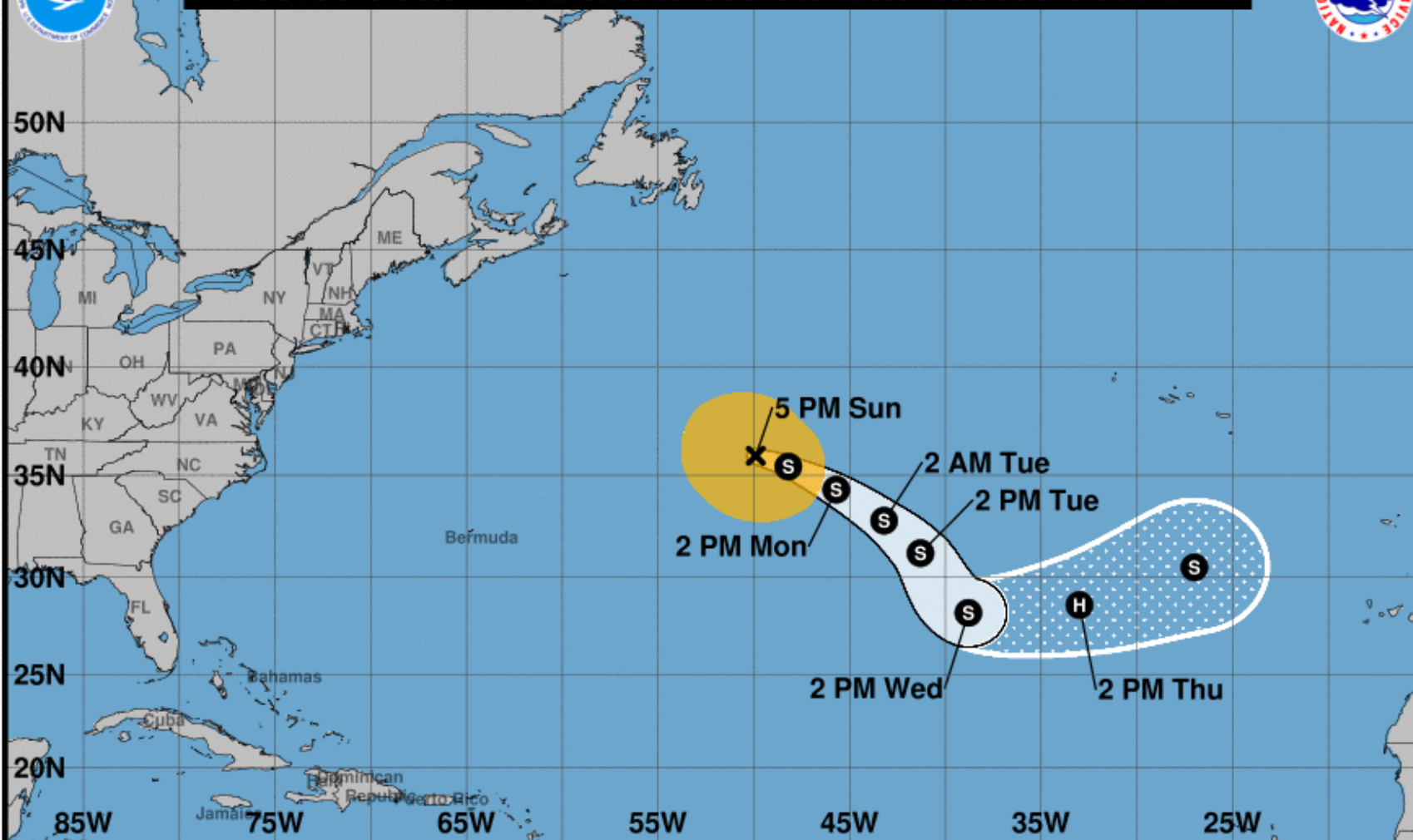
GOES-16 Channel 2 (visible) Reflectance at 18:35Z Oct 07, 2018

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Note: The cone contains the probable path of the storm center but does not show the size of the storm. Hazardous conditions can occur outside of the cone.



Tropical Storm Leslie

Sunday October 07, 2018

5 PM AST Advisory 46

NWS National Hurricane Center

Current information: x

Center location 35.9 N 49.9 W

Maximum sustained wind 60 mph

Movement ESE at 10 mph

Forecast positions:

● Tropical Cyclone ○ Post/Potential TC

Sustained winds: D < 39 mph

S 39-73 mph H 74-110 mph M > 110 mph

Potential track area:

Day 1-3 Day 4-5

Watches:

Hurricane Trop Stm

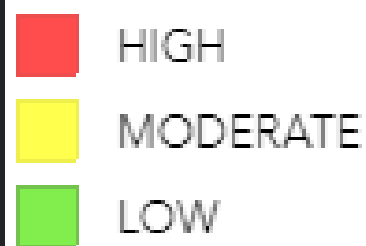
Warnings:

Hurricane Trop Stm

Current wind extent:

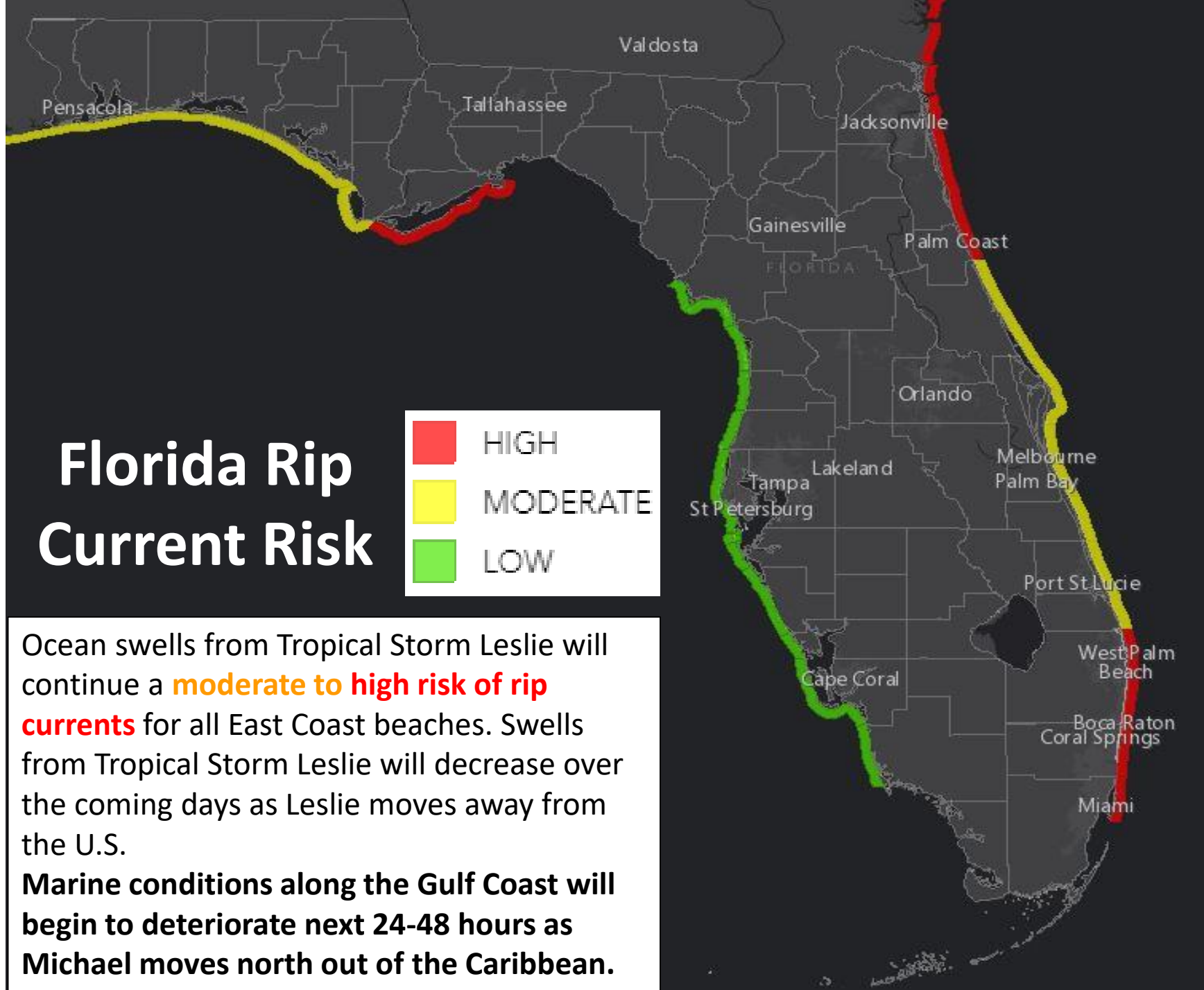
Hurricane Trop Stm

Florida Rip Current Risk



Ocean swells from Tropical Storm Leslie will continue a **moderate to high risk of rip currents** for all East Coast beaches. Swells from Tropical Storm Leslie will decrease over the coming days as Leslie moves away from the U.S.

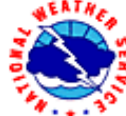
Marine conditions along the Gulf Coast will begin to deteriorate next 24-48 hours as Michael moves north out of the Caribbean.





Five-Day Graphical Tropical Weather Outlook

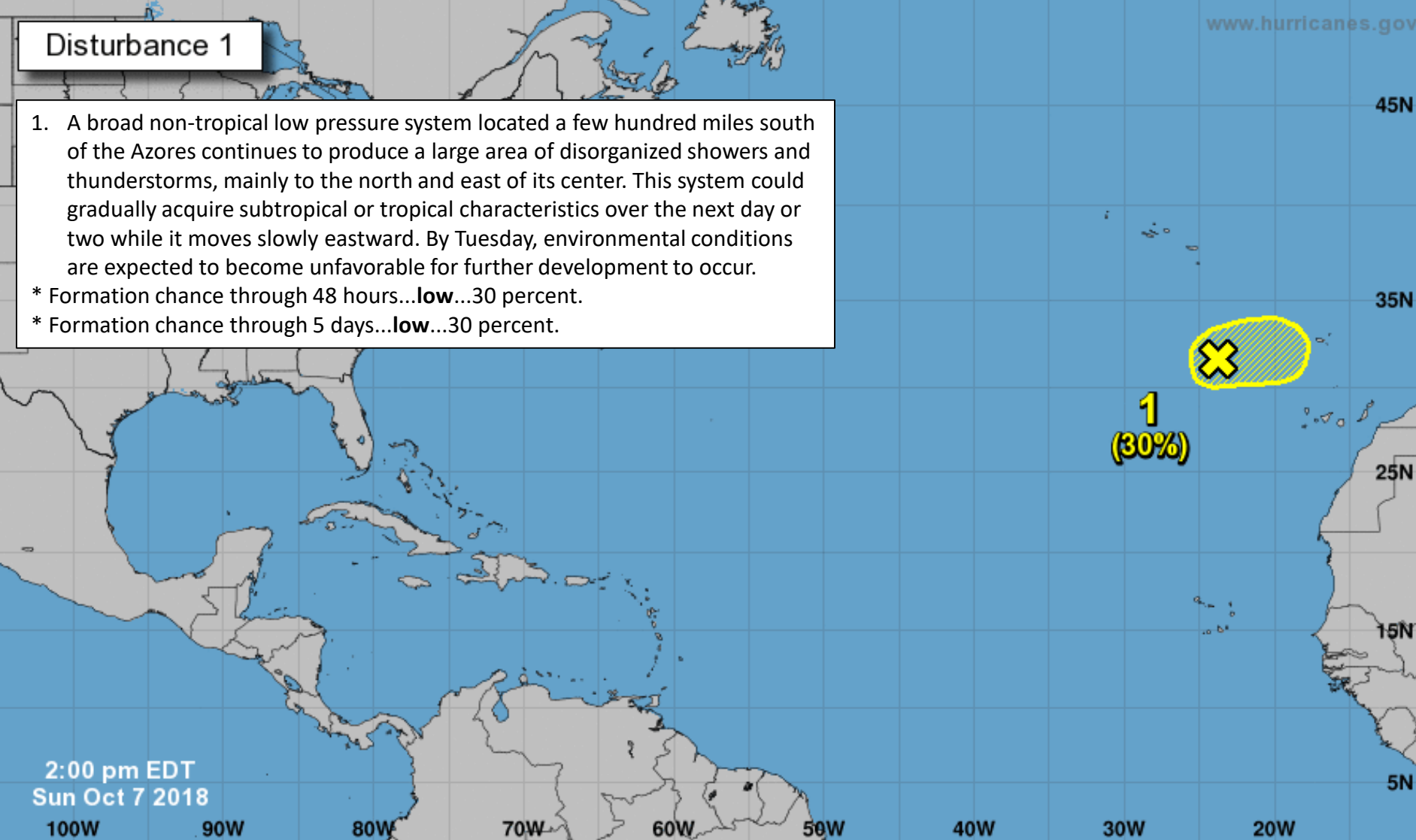
National Hurricane Center Miami, Florida



Disturbance 1

1. A broad non-tropical low pressure system located a few hundred miles south of the Azores continues to produce a large area of disorganized showers and thunderstorms, mainly to the north and east of its center. This system could gradually acquire subtropical or tropical characteristics over the next day or two while it moves slowly eastward. By Tuesday, environmental conditions are expected to become unfavorable for further development to occur.
- * Formation chance through 48 hours...**low**...30 percent.
 - * Formation chance through 5 days...**low**...30 percent.

www.hurricanes.gov



2:00 pm EDT
Sun Oct 7 2018

Current Disturbances and Five-Day Cyclone Formation Chance: < 40% 40-60% > 60%

Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane

Post-Tropical Cyclone or Remnants

Summary

Tropical Storm Leslie:

- At 5 PM EDT Sunday, Tropical Storm Leslie was located about 800 miles east-northeast of Bermuda.
- Maximum sustained winds remain near 60 mph, and small fluctuations in intensity are expected over the next several days
- Leslie continues to move east-southeast at 10 mph. Leslie will continue east-southeast or turn southeast and accelerate through the middle of next week in the open waters of the north-central Atlantic.

Invest 92L

- A broad non-tropical low pressure system located a few hundred miles south of the Azores has a 30% (low) chance of acquiring tropical or sub-tropical characteristics in the next 48 hours or 5 days. This system is no threat to the U.S. or Caribbean as it moves east.

Tropical Storm Michael

- At 1 PM EDT Sunday, Tropical Depression #14 strengthened enough to be designated Tropical Storm Michael.
- As of 5 PM EDT Sunday, Tropical Storm Michael was located about 90 east of Chetumal, Mexico, or about 800 miles south of Pensacola, FL.
- Maximum sustained winds are near 50 mph and Michael is moving north-northeast at 3 mph.
- Michael is expected to strengthen into Hurricane by Tuesday before it makes landfall sometime on Wednesday between Pensacola, FL and Cedar Key, FL. While models have come into better agreement today, there remains some uncertainty, especially in timing of landfall.
- Hurricane hunters are currently investigating this system and will be regularly for the next few days.

Florida Outlook:

- Tropical Storm Leslie continues producing a large area of long-period swells that will impact the East Coast of Florida for the next few days, resulting in a moderate to high risk of rip currents along all Atlantic beaches.
- An increase in swells and rip current risks from Michael will be possible along the Florida Panhandle and West Coast as early as tomorrow. Wave heights at Panhandle and Big Bend beaches may be as high as 8-10' Tuesday night through Thursday morning.
- Exact impacts from Michael will depend on strength and track. Hurricane, Tropical Storm, and/or Storm Surge Watches will likely be issued tomorrow morning for some of the Panhandle and Big Bend where more details will become available.
- Regardless, tropical storm conditions may arrive in the Panhandle as soon as Tuesday evening but no later than late Wednesday morning.
- Widespread rainfall totals of 3-6" with locally higher amounts of 8-10+" can be expected across the Panhandle and Big Bend.
- Storm surge values will be highest near landfall, but even with a landfall in the Panhandle some surge is still expected in Apalachee Bay. For planning purposes: 4-6' in Panhandle, 6-10' in Apalachee Bay, 3-5' Nature Coast
- Increased rain chances are expected today and tomorrow across the Florida Keys. Locally 2-4" of rain. 1-2" across the Peninsula.
- Isolated tornadoes will be possible Tuesday-Thursday, but risk and where will depend on eventual track and intensity of the system.

Another briefing packet will be issued Monday morning. For the latest information on the tropics, please visit the National Hurricane Center website at www.hurricanes.gov.



TROPICAL UPDATE

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State Meteorological Support Unit

Florida Division of Emergency
Management

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